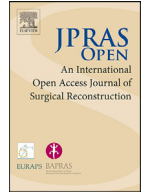




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Case Report

Ectopic Dupuytren's disease in the wrist compressing the palmar cutaneous branch of the median nerve

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ABSTRACT

A case report to describe the occurrence of Dupuytren's disease in the wrist leading to compression of the palmar cutaneous branch of the median nerve. A 60-year-old male presented with a lump on the volar aspect of the left wrist with reduced sensation in the thenar eminence. Intra-operatively this was found to be a nodule integrated within the palmaris longus tendon and positioned superficially to the palmar cutaneous branch of the median nerve. Histological findings were consistent with Dupuytren's disease and the patient's symptoms improved post excision of the nodule. Although Dupuytren's nodules occur rarely in the wrist, they should be considered as part of the differential diagnosis of wrist lumps and they have the potential to impact on nearby neural structures.

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Case report

Dupuytren's is a fibroproliferative disease of the palmar fascia. The disease is characterised by thickening and shortening of the fibrous bands in the hand and fingers, leading to a flexion con-

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Figure 1. A soft tissue lesion in the volar aspect of the left wrist.

tracture.¹ Ectopic sites of fibromatosis are commonly described on the dorsal digital area (Garrod's nodes), plantar fascia (Lederhosen disease) and male genitals (Peyronie's disease).²

This report describes a rare occurrence of Dupuytren's disease occurring in the wrist, leading to nerve compression in the hand.

A 60-year-old male patient presented with an 18-month history of a lump in the wrist, which was tender and associated with reduced sensation over the thenar eminence, and volar aspect of the thumb. The lesion measured 1×2.5 cm and was located on the central volar aspect of the wrist, proximal to the distal wrist crease, overlying the distal end of the palmaris longus tendon (Figure 1). The margins were well defined. The patient had a past history of bilateral, palmar and digital Dupuytren's disease, which had been surgically managed with multiple limited fasciectomy, but had no other features of ectopic Dupuytren's.

An L-shaped incision along the distal palmar crease and longitudinally down the forearm revealed a nodule within the plane of the deep fascia of the forearm. The palmaris longus (PL) tendon inserted into the proximal aspect of the nodule and was integrated completely within it. The flexor carpi radialis (FCR) tendon was located separately but in the same plane as the nodule. The median nerve was located in a separate plane dorsally and to the ulnar side of the nodule. The palmar cutaneous branch of the median nerve (PCBm) ran directly beneath the nodule and was seen to be compressed by it (Figure 2).

The nodule was dissected en bloc with the distal end of the PL tendon and the local deep fascia of the forearm. The FCR tendon and all neural structures were preserved and the skin defect was closed primarily. Histology confirmed a benign spindle lesion extending from the tendon tissue with fascicles and nodules, consistent with ectopic Dupuytren's disease. At follow-up 4 months later, the patient described improved sensation over the thenar eminence and thumb.

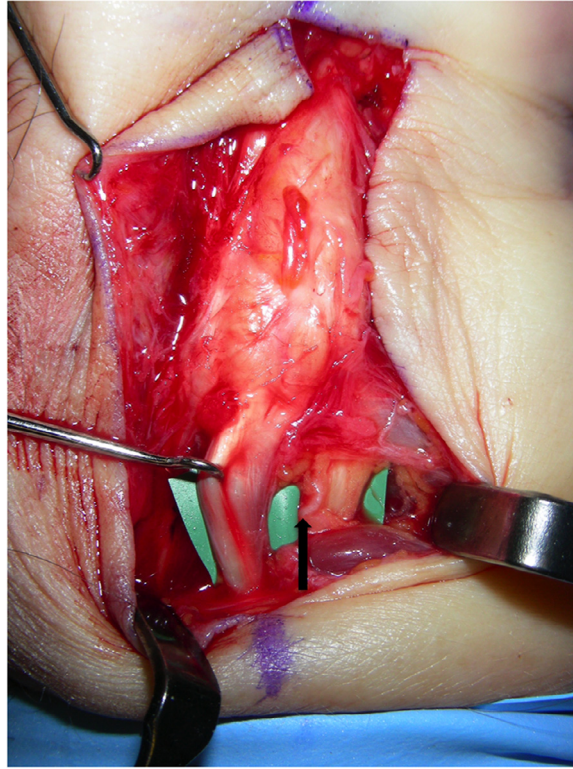


Figure 2. Intra-operative findings showing the lesion which was a fibrous nodule in continuity with the palmaris longus tendon (shown retracted by the skin hook). The median nerve, with its palmar cutaneous branch (arrow) was located in a separate plane dorsally and ulnarly to the nodule.

Discussion

Wrist lumps are commonly caused by pathology such as ganglia, lipomas and synovial swellings. An important differential diagnosis to consider here is fibrosarcoma, which has a histological similarity to Dupuytren's nodules and may have a higher incidence in patients with Dupuytren's contracture.³

Ectopic Dupuytren's disease in the wrist is extremely rare with few reports in the literature. There have been previous case reports of Dupuytren's nodules arising from the flexor carpi ulnaris (FCU) tendon at the wrist.⁴ Unusually, our patient had a nodule involving the PL tendon. There is some uncertainty about the nature of tissues involved when ectopic Dupuytren's is found at the wrist. One argument is that the nodules arise from the FCU or PL tendons as these structures are anatomical extensions of the palmar fascia.² An alternative argument is that the tendons are spared in Dupuytren's disease in the palm, therefore nodules in the wrist are more likely to arise from the deep forearm fascia. In this latter argument, involvement of the FCU and PL tendons in wrist nodules may be coincidental due to the anatomical position of the tendons within the layers of the deep fascia.⁵

Dupuytren's cords in the palm commonly extend across the base of the digit and may then displace neurovascular structures in the finger.¹ Two previous reports describe symptomatic compression of the ulnar nerve by ectopic Dupuytren's nodules involving the FCU tendon at the wrist.^{4,6} However, to our knowledge, this is the first case report to describe compression of the palmar cutaneous branch of the median nerve (PCBm) by a Dupuytren's nodule. The larger branches of the PCBm lie superficial to the palmar aponeurosis and cross over the carpal tunnel. It makes sense that the PCBm was com-

pressed in this case due to its anatomical location within the deep fascia of the wrist and in close proximity to the PL tendon.

Although rare, Dupuytren's disease should be considered as part of the differential diagnosis for lumps in the wrist. Whilst the origin of ectopic Dupuytren's nodules at the wrist remains uncertain, they can impact on nearby neural structures leading to symptoms of nerve compression.

Conflict of interest

N/A.

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